

Appl. No.: 10/720,023
Amdt. dated 08/29/2007
Reply to Final Office Action of May 1, 2007

Amendments to the Claims:

1 - 4. (Canceled)

5. (previously presented) An orthotic device for providing motion to an elbow joint of a user having an upper arm and a forearm, said device comprising:

a frame member;

a means for attaching said upper arm to said frame member;

an inflatable member positioned adjacent said forearm;

a strap connecting said inflatable member to said frame member such that a portion of said forearm is positioned intermediate said frame member and said inflatable member with a gap being present between said forearm portion and said frame member; and

an inflation device for inflating said inflatable member such that said elbow joint tends to be bent as said forearm pivots relative to and towards said frame member and said gap tends to be at least partially closed.

6. (previously presented) The orthotic device as claimed in claim 5, wherein said inflatable member is in contact with said forearm.

7. (previously presented) The orthotic device as claimed in claim 5, wherein said frame member does contact said elbow.

8. (previously presented) The orthotic device as claimed in claim 5, wherein said means for attaching is comprised of straps.

9. (previously presented) An orthotic device for moving an arm of a user so that abduction of the shoulder is provided, said device comprising:

- a chest strap for passing around the chest of said user;
- a spacing wedge attached to said strap for positioning underneath the armpit of said user;
- an inflatable member attached to said spacing wedge for positioning between said spacing wedge and the upper arm of said user;
- a shoulder-to-crotch strap attached to said chest strap, for extending to underneath the groin region of said user in order to provide support for pulling the scapula downwardly, thus tending to isolate motion to the glenohumeral joint; and
- a device for inflating said inflatable member such that abduction of the shoulder is provided while said shoulder-to-crotch strap tends to isolate motion to the glenohumeral joint.

10. (previously presented) An orthotic device for moving an arm of a user so that external rotation of the shoulder is provided, said device comprising:

- a strap for passing around the chest of said user and around said upper part of said user's arm, such that said upper part of said user's arm is urged towards the side of said user;
- an inflatable member attached to said strap;
- a spacing wedge, comprised of an inflated bag, for use intermediate said inflatable member and the stomach region of said user for spacing purposes such that said forearm of said user and said spacing wedge combine to capture said inflatable member there between; and
- a device for inflating said inflatable member such that external rotation of the shoulder is provided.

11. (Currently Amended) An orthotic device for manipulating a user's limb having a joint, said device comprising:

a structural body portion;

an inflatable member;

a retention member interconnecting said structural body portion and said inflatable member such that a portion of said limb can be inserted at a location between said structural body portion and said inflatable member and such that said limb portion is in contact with said inflatable member and wherein a gap is present between said limb portion and said structural body portion; and

an inflating device for inflating said inflatable member so that it increases in size, such that as said inflatable member is inflated, said inflatable member tends to increase tension in said retention member such that said limb is urged towards said structural body portion wherein said gap is reduced in such a manner as to result in flexion or extension of said joint.

12. (previously presented) An orthotic device for use by a user in combination with an elongate substantially rigid frame member, said device configured for providing movement to a knee joint of a leg of said user and comprising:

at least one flexible strap having a first end and a second end, said first end configured to be attached to said frame member;

an inflatable member including an inflatable bladder, said inflatable member when in place configured for being spaced from said knee joint and attached to said second end of said strap such that said leg can be positioned between said inflatable member and said frame member wherein a gap is present between said knee joint of said user and said frame member; and

a pump for inflating said inflatable member such that as said inflatable member expands, said flexible strap is placed in tension such that said inflatable member exerts a force against said leg and causes said gap to be reduced upon expansion of said bladder.

13. (previously presented) The device as claimed in claim 12, further comprising an ankle support member attached to said frame member, wherein said leg is captured on one side by said inflatable member and on the other side by said frame member and said ankle support member.

14. (previously presented) The device as claimed in claim 12, wherein said elongate substantially rigid frame member comprises a crutch.

15. (previously presented) The device as claimed in claim 12, further comprising a quick release means for deflating said inflatable member.

16. (previously presented) An orthotic device for use by a user in combination with an elongate substantially rigid frame member, said device configured for providing movement to a knee joint of a leg of said user and comprising:

at least one flexible strap having a first end, a second end, and a medial portion there between, wherein said first end and said second end are configured to be attached to said frame member;

an inflatable member including an inflatable bladder, said inflatable member when in place configured for being spaced from said knee joint and attached to said medial portion of said strap such that said inflatable member is captured between said strap medial portion and said leg; and

a pump for inflating said inflatable member such that as said inflatable member expands, said flexible strap is placed in tension such that said inflatable member exerts a force against said leg and causes said gap to be reduced upon expansion of said inflatable bladder.